



Short Article

Managing Disaster Risks to Insure Agricultural Production and Rural Development

The incidence of natural disasters has increased considerably during the last fifty years. This increase has significantly affected the agricultural production in many countries. The frequency of droughts, floods and other disasters over the last ten years is among the root causes of the current world food crisis, characterized by food shortages and rapid increases of food prices, especially cereals. Natural disaster risk management is therefore important in avoiding similar crises in the future. How can disaster risks be managed to ensure agricultural production is maintained? In this article, proactive financed insurance to farmers will be discussed, and an example of good practice will be examined.

Natural disasters have enormous impact on the economy, especially in developing countries. The agricultural sector is the most vulnerable sector to natural disasters. The impact of unfavourable climate events on agricultural production has become very clear in recent decades. Uncertain weather conditions discourage private investment in the agricultural sector. Structural lack of investment has led to a low level of productivity and total agricultural production.

Natural disasters are impossible or at least very difficult to predict. For example, over the last century, 80 per cent of earthquake-affected areas had no previous recorded history of earthquake vulnerability (UNITAR, 2008). A natural disaster is a shock that results in negative impacts on social and economic assets. When disaster strikes, the capacity of the affected population to resume productive activities in the post-disaster period depends on the risk management system in place. Because farmers face huge losses in terms of livestock, seeds and other assets, their capacity to resume income-generating activities is reduced and the situation in terms of rural employment and food security inevitably worsens. The vulnerability of the economy depends on the extent to which the government can rapidly assist the affected population. To do so, the government needs to raise money, usually a big amount in a short period of time, which might be a big issue for developing countries. This problem can be avoided by establishing an *ex ante* risk management system.

A key strategy in disaster risk management is government-sponsored insurance. Providing insurance against drought, flood and other disasters will reduce the vulnerability of the population, especially the agricultural sector (Margaret, 2008). Such insurance will help people to quickly resume their activities and the negative

impacts of the disaster will more rapidly dissipate. In this age of global warming, insurance to farmers will positively impact on private investment in the agricultural sector, since investors know they will be repaid if they face big losses related to climate conditions. For such insurance, multiple arrangements can be made. The government or local authorities might pay the premium to a private insurer, which will intervene quickly by paying cash when a natural disaster strikes. Another possibility is to establish a social protection fund or a micro-finance system at regional or district level, which will assist farmers to rapidly resume their agro-pastoral activities in the post-disaster period.

Establishing such a fund or insurance could be based on the Mexican government example, which can be tailored to other developing countries. In May 2006, the Mexican government issued a special catastrophe bond to raise funds for rescue operations in the event of an earthquake. The issuance of the bonds was given to the Zurich-based re-insurance group Swiss Re. It offers an insurance package covering the period 2006–2009. Investors who buy the bonds are betting that an earthquake will not hit the country in that period. If it does not, the investors will get back the value of the bond and they will keep the premium as well as the interest. But if an earthquake hits the country, the investors will lose their money and the Mexican government will use the money for rescue operations (UNITAR, 2008). In this way, the Mexican government has a special natural disasters fund for which it supports a small cost (premium and interest of the bond). While this bond is directed to earthquakes, a risk management system in another country might envisage a drought or flood bond. The fund will minimize the impact of natural disasters on agricultural production and food security.

In this age of climate uncertainty, the agricultural sector and the poor are paying a heavy price. Innovative and proactive methods of risks management are essential to minimize the impact of natural disasters. They will encourage investment in the agricultural sector and facilitate adequate and quick response to natural cataclysms. This in return will ensure agricultural production, food security and promote rural development. ■

Written by Agbessi Komla Amewoa, Associate Expert, UNESCAP-CAPSA, Bogor, Indonesia.

(References available upon request)

Flash **BREAKING****Cassava for Food and Energy Security**

At the Global Cassava Partnership Conference held in Belgium, cassava scientists called for a significant increase in investment in research and development to boost farmers' yields and explore promising industrial uses of cassava. Widely grown in tropical Africa, Asia and Latin America, cassava is the developing world's fourth most important crop. It is the staple food of nearly a billion people in 105 countries, where the root provides a third of daily calories. Cassava is also the cheapest known source of starch, used in hundreds of industrial products and biofuel. The scientists called on Governments to make much-needed investment in value-added cassava research that would make cassava starch products competitive on an international scale.

FAO Newsroom, 2008. Cassava for Food and Energy Security, <http://www.fao.org/> (25 July 2008).

Regional Food Bank Gets Go-ahead

With food crises looming in all eight member states, the South Asian Association of Regional Cooperation (SAARC) is to establish a regional food bank. This joint project would augment food production, invest in agriculture and related industries, conduct agricultural research, share technology, assist in procurement and distribution, as well as manage climatic and disease-related risks. The bank will act as a regional food security reserve for SAARC member countries, provide regional support to national food security efforts, foster inter-country partnerships and regional integration, and solve regional food shortages. The reserves will remain the property of the individual member country.

IRIN, 2008. Regional Food Bank Gets Go-ahead, <http://www.irinnews.org/> (7 August 2008).

Farmers Urged to Take up Conservation Agriculture

Some 100 delegates from 36 countries who recently gathered at the Food and Agriculture Organization headquarters called on farmers to join the ongoing 'Greener' Revolution represented by the practice of conservation agriculture (CA). At a meeting titled "Investing in Sustainable Crop Intensification and Improving Soil Health", the delegates established a 'Framework for Action'. This urged "a rapid shift, whenever and wherever conditions permit it, to management systems based on minimal soil disturbance, increased soil cover, and appropriate crop rotation". The Framework for Action also called on donors and policymakers to promote such systems into their programmes for agricultural development. CA allows farmers to increase yields while decreasing inputs.

Commodity Market Magazine, 2008. Farmers Urged to Take up Conservation Agriculture, <http://www.commodityonline.com/> (28 July 2008).

D-8 Group Aims for Food Self-sufficiency

In a bid for self-sufficiency in response to rising food and fuel prices, the Developing Eight Countries for Economic Cooperation (D-8), the members of which are the Muslim nations of Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan and Turkey, seek to revitalize their agricultural sectors by boosting capacity and investment in food production. A 10-year development roadmap that includes more co-operation in areas such as agriculture and a preferential trade agreement has just been endorsed. The countries also pledged to deepen co-operation to boost food production by easing supply constraints for agricultural inputs, including creating a seed bank, and increasing the production of fertilizer and animal feed.

IRIN, 2008. Muslim Developing Nations' Group Aims for Food Self-sufficiency, <http://www.irinnews.org/> (17 July 2008).

From Parastatals to Private Trade: Lessons

Over the last few decades, governments in Asia have created parastatal agencies to undertake public marketing activities in staples such as rice and wheat. The respective policies led to a sizable degree of government intervention in most of these countries' grain markets, which continues today. There are five key lessons from parastatal operations in Asia with regard to price stabilization: (a) public grain-price stabilization can contribute positively to increased agricultural growth and economic development; (b) there are two pre-conditions for successful public intervention in grain markets, the presence of market failure and high-level government commitment; (c) conditions change as times change; (d) parastatal agencies can incur huge costs in stabilizing grain prices; and (e) governments still have a positive role to play in grain markets. There are three main reasons why the parastatal-centred policies have to change: (a) the rationales for public intervention in food grains markets have changed over the years; (b) the food marketing parastatals are becoming increasingly expensive and wasteful; and (c) rice and wheat are not as likely to drive agricultural growth in the future. It must be understood that the change in parastatal-centred policies will require opening up the economy, letting private trade compete on equal terms with public parastatals, and using public policy to regulate and supplement, rather than replace, the private market. The lesson that emerges is that prices should be stabilized around a band that leaves enough room for private traders to cover all marketing costs, including the opportunity costs of human and physical capital. ■

Based on Rashid, S. et al., 2008. From Parastatals to Private Trade: Lessons from Asian Agriculture. IFPRI Issue Brief 50, <http://www.ifpri.org/> (July 2008).

Lessons from Contract Farming in Thailand

Thailand's agriculture has diversified from mainly rice to include various cash crops. Diversification was facilitated by policies for value-added exports and integration of farming and processing. Contract farming has been a key element in this process, i.e., "private-led integrated agricultural development". It has been instrumental in providing growers with access to supply chains with market and price stability. For resource-poor growers, production input and farm investment on credit are often provided by firms, in return for delivery of goods in specified quantities, quality and set prices. Contract farming in Thailand is approaching maturity. In the early stages, the government was heavily involved in monitoring, facilitating and encouraging stakeholders in contractual arrangements. Over time, farmers gained skills, the market evolved, and a more flexible form of contract farming emerged. In contract farming, both a quasi-monopoly and competition has been necessary for success. For high-demand crops like potatoes and other vegetables, contracted markets are highly competitive. Four typical contract models can be identified: the centralized model, the nucleus estate model, the intermediary and multipartite model, and the formal model. Key success factors are: production technology pre and post-harvest, technology transfer, trust building, pricing policy, financial support and human resource development for both farmers and firms. Reports indicated that contract growers have adopted good agricultural practices (GAP) or good animal husbandry practices (GAHP). ■

Based on Sriboonchitta, S. and Wiboonpongse, A., 2008. Overview of Contract Farming in Thailand: Lessons Learned. ADB Institute Discussion Paper No. 112, <http://www.adbi.org/> (July 2008).

Problems of Market Domination in Agri-food Value Chains

In response to the global food crisis, governments are rightly focusing on short-term measures to muffle the effects of the dramatic surge in commodity prices, particularly on the most vulnerable populations. However, addressing the root causes of the crisis requires a thorough appraisal of the global industrial agri-food system and concerted, long-term commitment to reforms aimed at ensuring global food security. This should include a critical examination of the growing use of intellectual property rights in the agri-food sector and its impact on local markets and farmers in developing countries. One of the problems arising from the current global agri-food system is the growing concentration of a few dominating companies at all stages of agri-food value chains. Concentration means less market power for smaller suppliers, buyers and retailers. Intellectual property rights have become central to the functioning of the agri-food sector, and today they take many forms, including patents, copyright, plant breeders rights, trade marks, trade secrets, geographical indications, etc. Associated risks include loss of agricultural biodiversity, and environmental and health safety risks. The seed and agrochemical fertilizer sector is now dominated by a handful of multinational companies. Yet the most direct, devastating effects are on small-scale farmers in the form of increased cost of seeds and fertilizers and restricted ability to save, reuse and sell seeds; their right to which is not recognized in the current international regulatory framework. Policy for sustainable agriculture for domestic food security must prioritize the needs of local markets and support for local farmers. ■

Based on South Centre, 2008. Lessons from the Food Crisis: Patchwork will not Mend Our Vulnerable System, <http://www.southcentre.org/> (16 June 2008).

Stuck in the Mud

Ploughing is not environmentally friendly. Every year, 10 million hectares, an area about the size of Iceland, are eroded; ploughing is the primary culprit. In response to the growing recognition of the problems of ploughing, Theodor Friedrich from the FAO, is trying to champion a style of farming called conservation agriculture, which revolves around a no-till system. There are three principles involved: minimal soil disturbance, permanent soil cover and crop rotation. Organic farmers, who recognize the problem of soil erosion, use crop cover to minimize erosion and plough manure into the soil to build it up again. Dr. Friedrich says this is "like driving a car at full throttle and with the brake applied". Ploughing always strips nutrients from the soil, and this nutrient release damages rivers and oceans. Conservation agriculture ideally stops erosion, minimizes nutrient loss, and, crucially, reduces greenhouse gas emissions. It will be interesting to see how conservation agriculture — whose supporters are trying to get a green label to use in stores, like organic products now have — fares against organic. In some parts of the world, such as Bangladesh, where sufficient manure to replenish soils is hard to come by, organic farming is impossible. The consequences of organic practices in inappropriate places can be troubling. Food labelling keeps consumers aware of the agricultural practices used to produce their food, but championing one label above all others risks excluding better solutions that new ideas and technologies provide. ■

Based on Economist, 2008. Stuck in the Mud, <http://www.economist.com/> (11 August 2008).

Flash EVENTS



10th Congress of International Mechanization and Energy in Agriculture

14 – 17 October 2008

Antalya, Turkey

Info:

<http://www.akdeniz.edu.tr/ageng2008>

The Third Global Congress of Women in Politics and Governance: Focus on Gender and Climate Change

19 – 22 October 2008

Dusit Hotel, Makati City, Metro Manila, the Philippines

Info:

<http://www.capwip.org/3rdglobalcongress.htm>

The 10th Asian Regional Maize Workshop

20 – 23 October 2008

Sahid Jaya Hotel, Makassar

South Sulawesi, Indonesia

Info:

<http://www.cimmyt.org/english/wps/events/2008/10armw.htm>

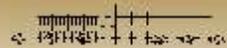
Organic Asia – The Way Forward Innovation, Challenges and Collaboration for the future!

28 – 31 October 2008

Sarawak Cultural Village, Kuching Sarawak, Malaysia

Info:

www.sdi.com.my/conference/orgasia_brochure.pdf



UNESCAP-CAPSA

Jl. Merdeka 145
 Bogor 16111, INDONESIA
 Phone: (62-251) 8356813, 8343277
 Fax: (62-251) 8336290
 Email: capsa@uncapsa.org
 www.uncapsa.org

Flash EDITORIAL CONTACTS

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Paper Review

Implications of Higher Global Food Prices for Poverty in Low-Income Countries

Maros Ivanic and Will Martin, Policy Research Working Paper 4594, The World Bank Development Research Group, Trade Team, April 2008.

UNESCAP-CAPSA, publisher of the *CAPSA Flash*, holds an editorial meeting every month to select the latest news stories concerning secondary crops, agriculture and rural poverty, from a long list of around 30 to 40 potential articles. Since the world has experienced a dramatic surge in the price of food, the list has been dominated by news reporting on the misery of poor households in developing regions due to the increasing burden of food expenditure. And there have been many discussions about the major cause of the soaring food prices. We have also seen proposals from various think-tanks for countermeasures to be taken by governments and international organizations. Many of them, based on the reviewer's own personal impression, took a snapshot of the agony of victims and from this somehow identified the major suspects responsible for the current food crisis. A consensus about the causes seems to have been formulated. First, the current crisis was triggered by multiple factors, from changing diets in emerging economies to financial market turmoil. Second, immediate action should be taken both in the short term and long term, including food aid, agricultural subsidies, trade negotiation and R&D.

However, as the authors of "Implications of Higher Global Food Prices for Poverty in Low-Income Countries" explain, "Despite widespread concern about the impacts of high food prices on poor people and on social stability, little hard information appears to be available on actual impacts on poor people". It may be easy and attract readers' attentions to report on a long line of people in front of a food shop or a riot of people who are accusing the government of neglect. Now a growing number of people have an understanding of the current food problem, and most of them would agree with the idea that a whole society should take comprehensive actions to solve the problem. At this stage, more accurate and quantitative information is indispensable if we want to formulate effective and efficient measurements that can help the neediest among the needy.

In this paper, the authors try to determine the implications of increasing food prices on poverty by applying a simple but data-intensive approach. In short, they "calculate the short-run impacts on households' income and costs of living following the changes in food prices". The calculation was done based on the household surveys containing a minimum of one thousand households in

each of nine low-income countries.

The findings of the study suggest that the overall impact of higher food prices on poverty is generally negative. The impact depends on whether the benefit for poor net-food-producers exceeds the negative impact on poor consumers. For example, in Cambodia, rice has the greatest impact on poverty among the selected commodities in the study. A 10 per cent increase in rice price raises national poverty rate by 0.5 per cent and increases poverty in both rural and urban areas. In Viet Nam, the largest impact also comes from rice. A 10 per cent price increase in price decreased rural poverty but increased urban poverty, and the overall effect was a slight decline of the national poverty rating. Though certain variations by commodity and by country were observed in the study results, the fact is that most poor people are net consumers of food and they are hurt by higher food prices. This conclusion is much more obvious for urban households. In spite of the gain by many rural households from higher food prices, the national level impact on poverty remains negative in most of the target countries.

At the time of writing, there is good news predicting good harvests in some food baskets in the coming season, which will give a temporary relief to the tightened commodity market. This 'injury time' would give us chance to analyse the real impact of food price hikes on the world's poor using accurate data and cool heads. In spite of the small coverage of countries, due to the difficulty of data availability, this paper can be recommended as a forerunner of such analysis. The paper also reminds us of the importance of data which can be used to discuss food crisis issues. If the statistical data is limited or unreliable, more effort should be applied to collecting first-hand data about the current condition of poor households. Under the declining trend of agricultural R&D investment, primary data collection is becoming a more luxurious activity due to limited budgets. Policy planners should give more concern to the maintenance of statistical data, which is an unspectacular but important job and necessary for coping with the food crisis. ■

Reviewed by Tomohide Sugino, Senior Researcher, Japan International Research Center for Agricultural Sciences (IRCAS).